

**Panasonic**  
ideas for life

## Advanced Hybrid Systems



**KX-TEA308 | KX-TES824**





For voice conversation - your telephone system is an integral part of your establishment and is your main tool of communication. It is your primary link to your business partners, customers, suppliers, employees, colleagues, friends, and even family members.

The KX-TEA308 and the KX-TES824 Advanced Hybrid PBX Systems can cost effectively support all your personal and business communication needs. The systems come pre-configured with 3 outside (CO) lines and 8 extensions. The KX-TES824 can easily be expanded with up to 8 outside (CO) lines and 24 extensions. Both systems provide features that can satisfy the demands of the most sophisticated and cost conscious users. You can even connect a variety of communication devices, such as cordless phones, answering machines, computer modems, credit card verifiers, fax machines, and any other device that works with conventional telephone lines.

Packed with so many features - the Panasonic KX-TEA308 and KX-TES824 are ideal for small businesses or home offices requiring a flexible system with a high degree of sophistication.

# The Best Solution

## For Your Communication Needs

### Useful and Efficient Features

#### 3-level Automatic Reception with Voice Guidance

- Reduces Operator Call Traffic
- Multi Level Messages

The KX-TES824 and KX-TEA308 support Direct Inward System Access (DISA) functions that allows outside callers to access any extension without going through an operator. Automatic greeting messages (3-levels) can be recorded by the operator or manager, directing the caller to an appropriate department or destination. For example: "Welcome to My Company. To speak to the Sales Dept please press 1, to speak to the Service Dept press 2, to speak to the operator press 3" (Level 1). Then additional options can be added after each option, for example, "To check on deliveries, press 1, for credit card orders press 2, (Level 2). Customers can be given options on 3 different levels. Callers can also dial the desired destination not only to an extension, but also to a group of extensions\*, or even outside lines. The DISA feature can drastically reduce the amount of call traffic handled by the operator - allowing the operator to spend more time with new or important customers.

\* All phones in the group will ring simultaneously, allowing any member of the group to answer the call.

#### Flexible SMS Routing\*

SMS (Short Message Service) messaging is an affordable and increasingly popular way to send text messages between fixed line and mobile telephones. You can customise the system to allow SMS message senders to address their messages directly to a specific user's SLT (Single Line Telephone), ensuring the desired user receives their messages quickly, and privately.

\* An optional Caller ID card and an SMS-compatible telephone is required to send and receive SMS messages. Please contact your dealer or phone company to confirm that Short Message Service is available in your area.

#### Built-in Voice Message (BV)\*

- Avoid Missed Calls and Lost Messages
- No Separate Voice Mail System Required

Enjoy the business benefit and efficiency of using voice messaging without adding a separate voice mail system. The optional Voice Message Card ensures you'll never miss an important call - giving your customers the option to leave a message when you are not available. You can customise your voice mailbox by recording your own greetings, which will be played when you cannot answer your phone. Your callers can simply leave you a voice message directly into your personal mailbox, allowing you to receive private information without relying on hand-written notes and memos. Call Centres and Workgroups can use the common message area for recording caller messages that can be played back later by an operator. For more advanced voice messaging needs, a Panasonic Voice Processing System (VPS) can provide for more professional flexibility and control.

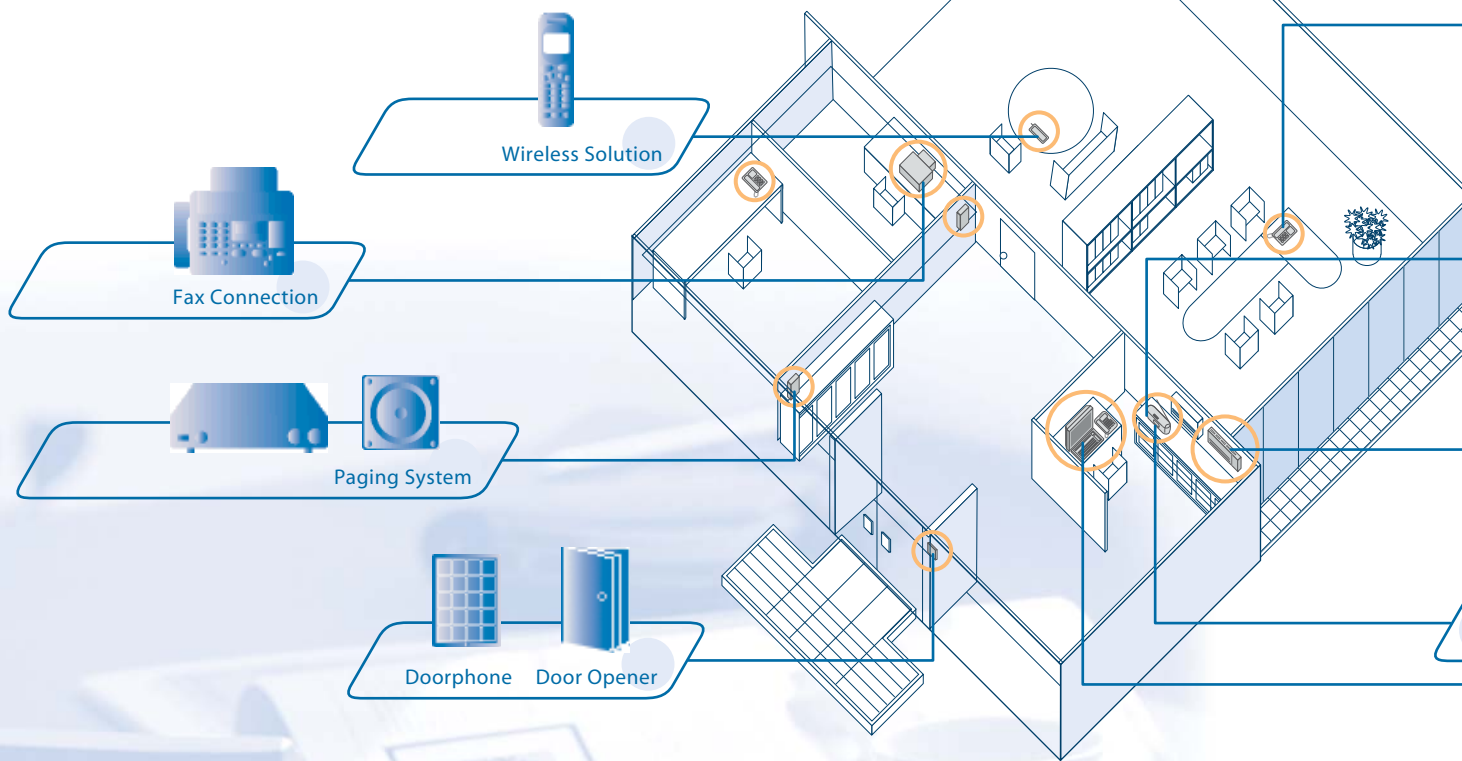
\* An optional Voice Message Card is required.

#### Caller ID Display on SLT's and APT's\*

- Caller Recognition
- Better Call Management

The system is compatible with Caller ID service, which allows a user to see the caller's information before they answer a call. This function works on Analogue Proprietary Telephones (APT's) as well as Single Line Telephones (SLT's) that support Caller ID display. Proprietary display telephones can be used to also access the Caller ID log for the 20 most recent calls (Call Log) while the system itself has 300 common logs. The logged incoming calls can be called back easily.

\* An optional card is required. Please contact your dealer or phone company to confirm if the Caller ID service is available in your area.



## Efficient Call Handling

### Uniform Call Distribution (UCD) with message

- Improves the company image.
- Important business calls will not be missed.
- Shares the operator load.

For handling many incoming calls quickly and efficiently, UCD with message allows incoming calls to be distributed uniformly to a group of extensions. If all stations in the UCD group are busy, the system plays a message to the caller - acting like a receptionist or a Music-on-Hold system. If still the UCD group remains busy, the call can be sent to a secondary DISA. This is especially useful for an office with high incoming call traffic with only one person to accept calls (queuing feature).

### Call Forwarding (Busy / No Answer / Follow-Me)

- Important business calls will not be missed.

Incoming, intercom and transferred calls to your extension can be easily forwarded to another destination when you are on the phone or away from your desk. Calls can be directed to a preprogrammed number, such as your mailbox, or another phone, improving efficiency and overall customer service. Forged to forward your calls while in a conference room? 'Follow me' programming allows you to remotely set Call Forwarding from another phone at your office (e.g. meeting room), so calls to your extension will reach you while you are away from your desk.

### Message Waiting\*

Allows an extension user to notify the called extension of a message waiting when the called extension is busy or does not answer the call. Pressing the lit MESSAGE button of proprietary telephone can call back the called party automatically.

\* Analogue Proprietary Telephone only.

### Day / Night / Lunch Mode

The system provides 'Day/Night' and 'Lunch' mode features, which can be used to change system behaviour according to the time of day. For example, you can designate which phones will ring for incoming calls after hours, or prevent outgoing calls at night.

### Doorphones, Door Openers, and Doorbells\*

The KX-TEA308 supports up to 2, while and the KX-TES824 supports up to 4 doorphones. As a visitor presses a doorphone button, a pre-assigned internal extension rings allowing the extension user to talk to the visitor. Standard doorbells can also be connected to the system to indicate doorphone calls with the familiar chime. If an optional Door Opener is connected, the extension user can even open the door and let the visitor in.

\* An optional card is required.

### 5-party Conference

The system allows 5 different parties to have a telephone conversation simultaneously. Up to 2 outside lines can join a conference call.

### Fax Detection

The system is smart enough to even detect an incoming fax transmission - routing the call automatically to a designated fax machine. This allows you to be able to receive faxes day or night without a need for someone to transfer the call, and removes any need for purchasing a special fax phone line.

## Hybrid System



Proprietary Telephone



Standard Telephone



Voice Mail System



Music on Hold



Access to PC

### Emergency Call

You can assign 5 different telephone numbers, which can override call restrictions when making an emergency call to the authorities - such as police, fire department, ambulance, etc.

### Room Monitor

An Analogue Proprietary Telephone or Doorphone can be used as a Room Monitor. This feature is useful for monitoring a child or elderly person's room or for security purposes.

### Extension Group

The system supports 8 extension groups. In an extension group, the following features can be activated.

**Group Call Pickup:** Any member of an extension group can pick up a call directed to another group member.

**Paging - Group:** Any member of an extension group can make a voice announcement to another group member.

**A hunting group:** DISA ring group or UCD group is a specific extension group.

### Ring Pattern Selection

- Distinguish incoming calls for easy call handling.

A ringing pattern can be selected depending on the type of call such as an outside call, intercom call or a doorphone call.

## Economical Cost Management

### Calling Activity Reports

#### Station Message Detail Recording (SMDR)

The KX-TEA308 and KX-TES824 can record or print out detailed call information such as the date, time, extension number, dialled number, duration, etc. SMDR records can help you effectively manage call costs, staff productivity and phone system usage. 3rd Party Accounting packages can be used for detailed reporting.

### Account Code Entry

#### (Option / Forced / Verified)

Account codes can be used to identify outgoing external calls for accounting and billing purposes. The calling activities made with ID codes can be printed out (SMDR). 'Verified Account Code' is a very useful way to control call costs and to manage your telephone expenses more effectively.

### Call Restriction

The system can be programmed to prohibit unauthorised outgoing long distance calls by restricting certain extensions from dialling certain specific area codes / exchange codes.

### Electronic Station Lock

Prevents unauthorised personnel from making calls from your phone by 'locking' outside lines and requiring a 4-digit security code before making calls. The operator and manager are given the privilege of controlling Electronic Station Lock at any station by using the DSS console. For example, this feature is useful for a small hotel to block calls after guests have checked out

### Limited Call Duration

The system disconnects outbound calls when a preprogrammed time expires. An alarm tone is sent to both parties 15 seconds before the assigned time limit.

## Easy Programming, Easy Maintenance

### Intuitive Customisation and Maintenance

System customisation and maintenance is easier than ever, thanks to the included Panasonic KX-TEA308 and KX-TES824 Maintenance Console software. Simply connect a PC to the system via the built-in USB or serial (RS-232C) interface, and the software's intuitive graphic interface will help you do the rest. The System Administrator can even program and maintain the system while off-site, by connecting remotely to the built-in modem. And of course, the familiar Panasonic PT Programming interface is also available, allowing you to quickly program the system using a PT.

### Battery Backup Interface (Built - In)\*

The system is equipped with a built-in battery interface which provides full system operation in the event of a power failure.

\* An optional connecting cable is required.

# Analogue Proprietary Telephones (APT)

Bringing a Sleek New Form to Communications

## ■ KX-T7735 3-Line Display, Speakerphone Unit

**Call Forwarding/Do Not Disturb**  
Call forwarding transfers calls to a different telephone. The "Do Not Disturb" function blocks calls when you are busy.

**Conference**  
For making multi-party calls.

**Intercom**  
Use to make or receive an intercom call.

**Flash/Recall**  
Use to disconnect a call without hanging up, then to reconnect or to send an EFA (External Feature Access) signal.

**Auto Answer/Mute**  
Auto Answer: For use with intercom calls.  
Mute: Listen in without being heard.

**Headset Jack**  
Talk without using the handset.

**Redial**  
For redialling.

**Hold**  
Places a call on hold.

**Speakerphone for Hands-Free Convenience**  
Dial or talk without picking up the handset.

**Alphanumeric LCD**  
3 line with a 16 character display provides useful information such as Absent Messages, Call Status, Date and Time, Call Duration, Incoming Call Log of BV and Caller ID\*

**Programmable Keys with Dual Colour LED (Red/Green)**  
Enjoy one-touch operation of features such as Direct Station Selection (DSS), Log-In/Log-Out, Dual-colour LEDs show convenient information. A Busy Lamp Field (BLF) shows which extensions are in use.

**Incoming Call/Message Lamp**  
This large, easy-to-see lamp announces incoming calls or messages, so you'll always know whose telephone is ringing – even from a distance.

**Message**  
Use to leave a message-waiting indication, or to reply to one.

**Pause**  
Inserts a pause in speed-dial numbers.

**Transfer**  
For transferring calls to another extension or to voice mail.

**Auto Dial/Store**  
For use with speed-dialling.

**Tilt-Angle Adjustment**  
The telephone adjusts to either of two angles for easier use and a smaller, space-saving footprint.



\* An optional card is required. Please contact your dealer or phone company to confirm if the Caller ID service is available in your area.

\* Black models are available.



■ KX-T7730  
LCD, Speakerphone Unit



■ KX-T7720  
Speakerphone Unit



■ KX-T7750  
Monitor Unit



■ KX-T7740  
DSS Console

| Feature                                   | Model | KX-T7735                    | KX-T7730                    | KX-T7720                    | KX-T7750                    |
|---|-------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Alphanumeric Display (Lines x Characters) |       | 3 x 16                      | 1 x 16                      | -                           | -                           |
| Programmable Keys with Dual Colour LED    |       | 12                          | 12                          | 12                          | 12                          |
| Programmable Feature (PF) Keys            |       | 12                          | -                           | -                           | -                           |
| Feature Access Keys for LCD               |       | Navigator Key               | Navigator Key               | -                           | -                           |
| Hands-Free Speech                         |       |                             |                             |                             | Monitor                     |
| SP-Phone (Monitor) Volume Control         |       | Navigator Key               | Navigator Key               | Up/Down Key                 | Up/Down Key                 |
| Handset Volume Control                    |       | Navigator Key               | Navigator Key               | Up/Down Key                 | Up/Down Key                 |
| Ringer Volume Control                     |       | Slide Switch (Off/Low/High) | Slide Switch (Off/Low/High) | Slide Switch (Off/Low/High) | Slide Switch (Off/Low/High) |
| Contrast Control                          |       | Navigator Key               | Navigator Key               | -                           | -                           |
| Incoming Call / Message Lamp              |       |                             |                             |                             |                             |
| Auto Answer / Mute                        |       |                             |                             |                             | -                           |
| Voice Call                                |       | -                           | -                           | -                           |                             |
| Headset Compatible*                       |       |                             |                             | -                           | -                           |

\* Only a φ2.5mm pin jack is connectable.

## Features List

- Absent Message Capability
- Account Code Entry (Option / Forced / Verified)
- Alternate Calling - Ring / Voice
- Automatic Callback Busy (Camp-on)
- Automatic Configuration for Outside (CO) Line Type
- Automatic Fax Transfer
- Battery Backup Interface (Built - in)
- Built-in Voice Message (BV)\*<sup>1</sup>
- Busy Station Signalling (BSS)
- Call Barring
- Call Forwarding
  - All
  - Busy / No Answer
  - Follow Me
- Caller ID Display on SLT and APT\*<sup>1</sup> \*<sup>3</sup>
- Calling Party Control (CPC) Signal Detection\*<sup>2</sup>
- Call Park
- Call Pickup
- Call Routing for Fixed Line SMS
- Call Splitting
- Call Transfer
  - To Extension
- Call Waiting
- Conference (3-Party / 5-Party)
- Conference, Unattended (3-Party)
- Data Line Security
- Direct in Line (DIL)
- DISA (Direct Inward System Access) with message (3-level, 1ch, 180sec)
- Distinctive Dial Tone
- DND (Do Not Disturb)
- DND Override
- Door Opener\*<sup>1</sup>
- Doorphone Call\*<sup>1</sup>
- DSS Console
- Emergency Call
- Executive Busy Override (Extension / CO Line)
- Executive Busy Override Deny
- Extension Group
- Extension Password / System Password
- External Feature Access
- Flexible Extension Numbering
- Handsfree Answerback
- Hold
- Intercept Routing
- Intercom Calling
- Limited Call Duration (1~32 minutes)
- Log-In / Log-Out
- Message Waiting
- Music on Hold / Background Music (BGM)
- One-Touch Dialling
- Operator Call
- Outgoing Message (OGM)
- Paging
  - All Extension
  - Group
  - External
- Paging Deny
- Parallel Telephone Connection
- Pickup Dialling (Hot Line)
- Polarity Reverse Detection\*<sup>2</sup>
- Power Failure Transfer
- Preferred Line Assignment
  - Incoming
  - Outgoing
- Programming (via PT / PC)
- Pulse to Tone Conversion
- Redial
  - Automatic
  - Last Number
  - Saved Number
  - Logged Caller ID\*<sup>1</sup>
- Ringing Pattern Selection
- Room Monitor (APT / Doorphone)
- Secret Dialling
- Speed Dialling
  - System
  - Personal
- Station Feature Clear
- Station Hunting
- Station Lock
- Station Lock, Remote
- SMDR (Station Message Detail Recording)
- Time (Day / Night / Lunch) Service
  - Automatic
  - Manual
- Timed Reminder
- Timed Reminder, Remote
- UCD (Uniform Call Distribution) with message
- Voice Mail Integration (APT / DTMF)
- Walking COS (Class of Service)

## Specifications

### ■ Configuration

|           | Basic                                   | Option (KX-TE82480)<br>2CO's / 8 SLTs | Option (KX-TE82483)<br>3CO's / 8 Hybrid Extensions | Option (KX-TE82474)<br>8 SLTs |
|-----------|---|---------------------------------------|--|-------------------------------|
| KX-TEA308 | Outside (CO) Lines: 3<br>Extensions : 8 |                                       |  |                               |
| KX-TE8284 | Outside (CO) Lines: 3<br>Extensions : 8 | 5<br>16                               | 8<br>24<br>6<br>16                                 | 6<br>24<br>3<br>16            |

### ■ System Components

| Option     | Description  | KX-TEA308 | KX-TE8284 |
|------------|--|-----------|-----------|
| KX-TE82460 | 2-Port Doorphone Interface Card                          | Max.1     | Max.1     |
| KX-TE82461 | 4-Port Doorphone Interface Card                          | N/A       | Max.1     |
| KX-TE82474 | 8-Port Single Line Telephone Extension Card              | N/A       | Max.1     |
| KX-TE82480 | 2-Port Analogue CO Line and 8-Port Single Line Telephone | N/A       | Max.1     |
| KX-TE82483 | 3-Port Analogue CO Line and 8-Port Hybrid Extension Card | N/A       | Max.1     |
| KX-TE82491 | Message Expansion Card for OGM                           | N/A       | Max.1     |
| KX-TE82492 | 2-Channel Voice Message Card                             | Max.1     | Max.1     |
| KX-TE82493 | 3-Port Caller ID Card                                    | Max.1     | Max.3     |
| KX-T30865  | Doorphone  | Max.2     | Max.4     |
| KX-A227    | Back-up Battery Cable                                    | Max.1     | Max.1     |

### ■ System Capacity (Max.)

| ITEM                               | KX-TEA308                       | KX-TE8284                       |
|------------------------------------|---------------------------------|---------------------------------|
| Operator                           | 1                               | 1                               |
| System Speed Dialling              | 100                             | 100                             |
| Personal Speed Dialling            | 10 / Ext.                       | 10 / Ext.                       |
| One-Touch Dialling                 | Max 12 / Ext.                   | Max 12 / Ext.                   |
| Extension Groups                   | 8                               | 8                               |
| UCD Group                          | 1                               | 1                               |
| Toll Restriction Levels            | 5                               | 5                               |
| Account Codes (Verified)           | 50                              | 50                              |
| Call Park                          | 10                              | 10                              |
| Call Log (Caller ID)* <sup>3</sup> | 20 (Personal)<br>300 (Common)   | 20 (Personal)<br>300 (Common)   |
| Absent Messages                    | 6                               | 6                               |
| Message Waiting                    | 8 / Ext.                        | 8 / Ext.                        |
| Emergency Codes                    | 5                               | 5                               |
| External Music Source              | 1                               | 1                               |
| External Pager                     | 1                               | 1                               |
| Doorphones                         | 2                               | 4                               |
| Door Openers                       | 2                               | 4                               |
| DSS Consoles                       | 2                               | 2                               |
| Outgoing Message (DISA)            | 180 sec                         | 360 sec                         |
| Outgoing Message (BV)              | 125 messages or 60 min. (/1 ch) | 125 messages or 60 min. (/1 ch) |

### ■ Specifications

| ITEM                                     | KX-TEA308  | KX-TE8284                                  |
|--|--|--|
| Maximum Capacity                         | 3COs<br>8 Extensions<br>(8:Hybrid)   | 8COs<br>24 Extensions<br>(16:Hybrid 8:SLT) |
| Intercom Paths                           | 3  | 4  |
| Dialling Method                          | External: Tone (DTMF) / Pulse (10 pps, 20 pps)<br>Internal: Tone (DTMF) / Pulse (10 pps, 20 pps)                             |  |
| Dialling Conversion                      | Pulse to DTMF  |  |
| Connections                              | CO Line<br>Intercom<br>Paging<br>External Music<br>SMDR<br>Programming   |  |
| SMDR                                     | Detail Recording: Date, Time, Extension Number, CO Line Number, Dialed Number, Call Duration, Account Code, ID* <sup>3</sup> |  |
| Polarity Reverse Detection* <sup>2</sup> | Yes  |  |
| Voice Mail Ports                         | 2 ports (APT or DTMF)  |  |
| DTMF Receivers                           | 2  |  |
| DTMF Generator                           | 1  |  |
| Power Failure Transfer Ports             | 1  |  |
| Direct Connection to External Battery    | Yes  |  |
| Power Source                             | AC 100 - 240 V, 50/60 Hz   |  |
| Power Consumption                        | 34W  | 45W  |
| Dimensions (W x H x D) mm                | 249 x 316 x 73   | 368 x 284 x 73                             |
| Weight (when fully expanded)             | Approx. 1.8 Kg   | Approx. 3.5 Kg                             |

\*<sup>1</sup> An optional card is required.

\*<sup>2</sup> Polarity Reverse Detection is subject to the telephone company services in your country.

\*<sup>3</sup> Please contact your dealer or phone company to confirm if the Caller ID service is available in your area.

APT: Analogue Proprietary Telephone  
SLT: Single Line Telephone

### ■ Interfaces

RS-232C  
USB (1.1)  
Battery Interface  
Doorphone / Door Opener  
External Music Source  
External Pager